



# FOSTER NEWSLETTER

Founder: Stacey R. Leondis

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## Foster-Funded Grant Sheds New Light

*The Memorial Sloan Kettering Cancer Center Reports New Findings*

Dr. Richard Gorlick of the Memorial Sloan Kettering Cancer Center in New York has recently reported his lab's findings. As the recipient of Foster Foundation's first grant, Dr. Gorlick has broken new ground in the study of osteosarcoma. The Foster-funded *Genetic Analyzer 3100 Avant* is a cutting-edge tool used in the pediatric sarcoma research lab.

"We have used the genetic analyzer to identify 35,000 genes from each of the following cell types: normal osteoblasts, an osteosarcoma cell line and a patient's osteosarcoma tumor sample." Dr. Gorlick believes that this will begin to yield clues as to the causes of osteosarcoma as well as potential targets for therapy.

Using a technique known as SAGE (Serial Analysis of Gene Expression), the team at Memorial Sloan Kettering has already pinpointed two potential therapeutic targets. "One of these targets is PTHRP (parathyroid hormone related peptide)." This hormone helps to regulate calcium throughout the human

skeletal system. In osteosarcoma tumors, however, PTHRP is highly expressed. With this discovery, additional studies will test the effects of inhibiting the hormone's production in osteosarcoma.

The second potential therapeutic target is the folate receptor. Although folate receptors are normally expressed only in the ovary, they are also "differentially expressed in osteosarcomas." Through the use of the *Avant 3100*, Dr. Gorlick has created a basis for testing drugs, originally developed for ovarian cancer, on preclinical models for osteosarcoma.

### Tackling the Problem of Toxicity

A challenging aspect of cancer research is trying to determine how and why certain types of chemotherapy affect patients differently. Dr. Gorlick is using the *3100 Avant* to study whether "individual variability in genes involved in drug metabolism can explain differences in the side effects (toxicity) patients experience when treated with chemotherapy."

"We believe that we have made significant progress. Without the support of the Foster Foundation, these studies would not have been possible."

## NEWS AND THANKS

1. We would like to extend a special **thank you** to everyone who participated in the 2003 Foster Foundation Raffle Event. In total, we raised **\$105,000** from our first fundraiser, which would not have been possible without your generous support!
2. We would like to thank Dr. Gorlick, our science advisor, Drs. Healey, Meyers, Huvos, Athanasian, the pediatric nurses and the members of the pediatric sarcoma research laboratory as well as our trustees: Mr. and Mrs. Joseph Leondis, Mr. and Mrs. John Leondis, Mr. and Mrs. Steven Leondis and Mr. and Mrs. John Gruska. Finally, we extend our thanks to our board members: Mr. Peter Dion, Mr. Robert Foschi, Mr. Stuart Goldstein, Mr. William Heinzerling, Mr. William R. Howell, Mr. Peter Menges and Mr. Arthur Molins.
3. Lastly, we would like to announce that an event for March 2004 is being planned. Stay tuned for more information!



*Dr. Richard Gorlick, Director of the Pediatric Sarcoma Research Laboratory at Memorial Sloan Kettering Cancer Center, is also the Subcommittee Chairman for osteosarcoma research at the National Institutes of Health.*